COMPOSITE HYDROGEN ION EXCHANGE MEMBRANE HAVING SEPARATION CAPACITY, COMPOSITE SOLUTION, ITS PRODUCTION METHOD, AND FUEL CELL CONTAINING IT

Patent number: JP2003175340
Publication date: 2003-06-24

Inventor: WON JONGOK; KANG YOUN SU; O IN FAN; HA FUN YON; CHO SAN UKU; CHOUN JEE WON; JON BUMU SOKU
Applicant: KOREA INST OF SCIENCE & TECHNOLOGY

Classification:
- International: B01J47/12; B01D69/12; B01D71/28; B01D71/32; B01D71/80; B01J39/20; H01B1/06; H01M4/86; H01M8/02; H01M8/10
- european:
Application number: JP20020256633 20020902
Priority number(s):

Also published as:
EP1289043 (A1)
US2003054219 (A

Abstract of **JP2003175340**

PROBLEM TO BE SOLVED: To provide a composite hydrogen ion exchange membrane having a separation capacity, a composite solution, its production method, and a fuel cell containing the same.

SOLUTION: The composite ion exchange membrane has a structure in which a barrier substance being clay or an organically modified clay is dispersed in an ionically conductive polymer film. Such a composite ion exchange membrane is not markedly deteriorated in hydrogen ion diffusion though it selectively interrupts methanol. Further, it is advantageous in cost. The membrane can therefore be usefully used in a direct methanol fuel cell in which the fuel is methanol.